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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,583	12/22/2003	Steven Allen Carlson	1141.011	7979

7590 11/04/2004

Attn: Intellectual Property Department  
Optodot Corporation  
Suite 305  
214 Lincoln St.  
Allston, MA 02134

EXAMINER

TRA, TUYEN Q

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/743,583

Applicant(s)

CARLSON, STEVEN ALLEN

Examiner

Tuyen Q Tra

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-40 is/are allowed.
- 6) ☒ Claim(s) 1-28, 41-43 and 45-48 is/are rejected.
- 7) ☒ Claim(s) 44 and 49-54 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 112**

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1 is rejected under U.S.C. 112 as being single means claims.

A single means claim, i.e., where a means (i.e. a reflective layer as cited by applicant in claim 1) recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35U.S.C. 112, first paragraph.

In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor (see MPEP 2164.08(a)).

Claims 2-8 are rejected as being dependent upon the claims above.

### **Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 9-28, 41-43 and 45-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Oguchi et al. (U.S. Pat. 4,921,780A).

a) With respect to claims 9 and 45, Oguchi et al. discloses an optical recording medium and method thereof in Figures 1, 2, 3, 4 comprising of a reflective layer (organic thin film which have high reflectance) that is applied over a substrate (item 1), wherein the reflective layer (item 2) comprises a reflective organic free radical compound (i.e. comprising of hexafluoroarsenate in col. 4, line 61) (col.1, lines 62-66).

a) With respect to claim 41, Oguchi et al. discloses an optical recording medium in Figures 1, 2, 3, 4 comprising of a substrate (item 1), a reflective layer (organic thin film which have high reflectance) that is applied over a portion of the substrate (item 1), wherein the reflective layer (item 2) comprises a reflective organic free radical compound (i.e. comprising of hexafluoroarsenate in col. 4, line 61) (col.1, lines 62-66).

b) With respect to claims 10, 42 and 46, Oguchi et al. further discloses wherein the reflective layer is visibly transparent.

c) With respect to claims 11-18, 43 and 47, Oguchi et al. further discloses wherein the reflective layer is opaque to optically reading the substrate at one or more infrared wavelengths; wherein the reflective layer is reflective at the one or more infrared wavelengths; wherein the reflective layer has greater than 10% reflectance at the one or more infrared wavelengths; wherein the reflective layer has greater than 20% reflectance at the one or more infrared wavelengths; wherein the reflective layer has greater than 30% reflectance at the one or more infrared wavelengths; wherein the one or more infrared wavelengths are in the infrared region of 700 to 2000 nm; wherein the one or more infrared wavelengths are in the infrared region of 2000

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to 3000 nm; wherein the one or more infrared wavelengths are in the infrared region at wavelengths greater than 3000 nm.

d) With respect to claims 19-24 and 48, Oguchi et al. further discloses wherein the reflective layer is opaque to optically reading the substrate at one or more visible wavelengths; wherein the reflective layer is reflective at the one or more visible wavelengths; wherein the reflective layer has greater than 10% reflectance at the one or more visible wavelengths; wherein the reflective layer has greater than 20% reflectance at the one or more visible wavelengths; wherein the reflective layer has greater than 30% reflectance at the one or more visible wavelengths; wherein the one or more visible wavelengths are in the visible region of 580 to 700 nm.

e) With respect to claims 25-28, Oguchi et al. further discloses wherein the organic free radical compound is a salt of an organic radical cation; wherein the organic free radical compound is a salt of an aminium radical cation; wherein the organic free radical compound is a salt of a tetraisphenyl-ly4-berenediaine radical cation; wherein the organic free radical compound is a salt of a tris(phenyl)-aminium radical cation.

#### **Allowable Subject Matter**

5. Claims 29-40 are allowed.

The reason for the indication of allowable subject matter is that (claim 29) a marking system comprising a reflective layer that is applied over a substrate, wherein said reflective layer comprises a reflective organic free radical compound; and wherein an image layer is applied in an imagewise pattern overlying said reflective layer, wherein said image layer comprises optically readable information.

6. Claims 44 and 49-54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reason for the indication of allowable subject matter is that (claim 44) wherein an image layer applied in an imagewise pattern overlying said at least one of said one or more reflective layers, said image layer comprising optically readable information, is optically readable at said one or more infrared wavelengths when scanned from the side of said card stock on which said image layer was applied and is not optically readable at said one or more infrared wavelengths when scanned from the side of said card stock opposite from which said image layer was applied; (claim 49) wherein said method comprises a step (iii) of applying an image layer in an imagewise pattern over said reflective layer, wherein said image layer comprises optically readable information disclosed in the claims is not found in the prior art.

#### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Chang et al. (US 6,461,793B2) discloses a laser addressable thermal transfer imaging element with an interlayer with the use of IR-99 material in organic layer.

b) Kitayama et al. (US 6,475,590 B1) discloses an aminium salt or diimonium salt compounds and use thereof with teaching of a gold coated over thin organic membrane layer to make a reflection layer.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen Tra whose telephone number is (571) 272-2343. The examiner can normally be reached on Monday to Thursday from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps, can be reached on (571) 272 - 2328. The fax number for this Group is (703) 872-9306.

tt

October 27, 2004



Hung Xuan Long  
Primary Examiner